

## REMARKS

Claims 1 to 6 and 8 to 26 are pending in the application.

### **Information Disclosure Statement**

The examiner has refused to consider some of the non-English language references that have been submitted with Information Disclosure Statement dated 2/27/06 as failing to comply with 37 CFR 1.98.

Examiner does not specify which part of 37 CFR 1.98 applicant has not complied with. The requirements of 37 CFR 1.98 in regard to foreign language references are as follows:

“(a)(3)

*(i) A concise explanation of the relevance, as it is presently understood by the individual designated in §§1.56(c) most knowledgeable about the content of the information, of each patent, publication, or other information listed that is not in the English language. The concise explanation may be either separate from applicant's specification or incorporated therein.*

*(ii) A copy of the translation if a written English-language translation of a non-English-language document, or portion thereof, is within the possession, custody, or control of, or is readily available to any individual designated in §§ 1.56(c).”*

In regard to (a)(3)(i), it is respectfully submitted that MPEP 609.04(a) ... III. CONCISE EXPLANATION OF RELEVANCE FOR NON-ENGLISH LANGUAGE INFORMATION states toward the end of the 2nd paragraph that:

*“Where the information listed is not in the English language, but was cited in a search report or other action by a foreign patent office in a counterpart foreign application, the requirement for a concise explanation of relevance can be satisfied by submitting an English-language version of the search report or action which indicates the degree of relevance found by the foreign office. This may be an explanation of which portion of the reference is particularly relevant, to which claims it applies, or merely an "X", "Y", or "A" indication on a search report.”*

In regard to (a)(3)(ii) it is respectfully submitted that there is no requirement according to which applicant must submit translations of non-English language references,

i.e., only if a translation is in applicant's possession a translation must be submitted. It is further stated in MPEP 609.04(a) ...II. LEGIBLE COPIES in the second to last paragraph that:

*"If no translation is submitted, the examiner will consider the information in view of the concise explanation and insofar as it is understood on its face, e.g., drawings, chemical formulas, English language abstracts, in the same manner that non-English language information in Office search files is considered by examiners in conducting searches."*

The Information Disclosure Statement submitted on 2/27/06 provided a translation of the foreign search report from which the relevance of the references (X, Y, A category and relevant parts such a Figures etc.) can be taken and therefore fulfilled the requirements of 37 CFR 1.98 (a)(3)(i). An English language translation is not required (37 CFR 1.98 (a)(3)(ii)). Therefore applicant has fully complied with 37 CFR 1.98.

It is therefore respectfully requested that examiner consider all references of the Information Disclosure Statement in accordance with MPEP guidelines .

#### **Claim Rejections - 35 U.S.C. 112**

Claim 20 stands rejected under 35 U.S.C. 112, 2nd paragraph, as being indefinite.

Claim 20 has been revised in view of the examiner's remarks and is believed to now set forth the features being claimed in definite terms.

#### **Rejection under 35 U.S.C. 102**

Claims 1-5, 7-9, 14, 17 stand rejected under 35 U.S.C. 102(b) as being anticipated by GB 1,095,068.

Claim 1 defines a portable device with overload protection device that operates by means of a drum and a coupling that under the effect of centrifugal force will engage the drum (feature of canceled claim 7). A special feature resides in that the drum is arranged on the drive side of the device while the centrifugally acting coupling is arranged on the driven side, i.e., on the output shaft that acts on the tool.

The overload protection that is effected by this arrangement is described in the description, for example, in paragraph 38. The inventive arrangement does not act as a centrifugal clutch in the conventional sense where coupling is effected above a predetermined minimal engine speed of the motor. The drum according to the present

invention can reach any rotary speed while the tool is standing still because the drum is driven by the motor without the output side having to be entrained by the fly bodies arranged thereat. By means of minimal friction between the fly bodies and the drum it is ensured that the tool when not loaded can be accelerated when the motor is started. This causes centrifugal forces to be generated that, above a certain speed, are sufficiently great to generate enough friction for a rotary driving action of the tool.

The actual function of the overload protection occurs only once the output on the tool is too great and the tool is in particular blocked. The braking moment of the blockage is transmitted from the tool onto the output shaft that has the fly bodies connected thereto; the fly bodies now slip relative to the drum. At the point in time when slipping occurs, the tool together with the output shaft completely blocks or stalls. The fly bodies are no longer subject to centrifugal force while the motor, the motor shaft, and the drum can still rotate. The elimination of centrifugal force acting on the fly bodies leads to an immediate, instant decoupling without this requiring that the motor side and the drum must be braked. As a safety device, the overload protection according to the invention acts substantially without any delay because the drive motor can continue to run.

As a further advantage it should be noted that actually a complete separation between the drive side and the driven side is realized. When the operator starts the motor while the tool is blocked, the motor including the drum can rotate freely without entraining the fly bodies that are stopped and not subjected to any centrifugal force. This arrangement therefore causes no or only minimal frictional heat. An overloading of the arrangement is prevented.

The arrangement according to claim 1 is neither anticipated by nor obvious in view of the cited reference *GB 1,095,068*. *GB 1,095,068* shows a grinding device with overload protection in which the torque transmission from motor to the driven tool shaft is realized by a friction plate 14. The friction plate 14 is pressed by means of dished springs 17 against the end face of the wheel 12. When the tool is subjected to overload or is blocked, the tool spindle 5 and the friction plate 14 slip relative to the wheel 12; see page 2, lines 32-38.

This arrangement corresponds to the prior art that is discussed in paragraph 6 of

the instant specification. The friction connection between drive side and driven side is permanent even in the blocking situation. As soon as the drive motor is not immediately switched off, the slipping movement between the plate 14 and the wheel 12 causes great friction and leads to overheating and excessive wear.

The arrangement according to *GB 1,095,068* shows an axial spring-loaded pressing action. The springs 17 are used to press the plate 14 against the wheel 12. There is no centrifugal force - centrifugal force by definition acts radially - for affecting the coupling action: only axial pressure is applied and the friction between the friction surface 16 and the wheel 12 generates rotational engagement. There is no drum and no coupling that is forced by centrifugal force against the drum. In particular, there are no coupling elements provided at the driven side which coupling elements act under centrifugal force on a drum provided on the drive side.

The subject matter of the claim 1 is therefore not anticipated by nor obvious in view of *GB 1,095,068* and claim 1 and its dependent claims should be allowable.

Reconsideration and withdrawal of the rejection of the claims 1-5, 7-9, 14, 17 pursuant to 35 USC 102 are therefore respectfully requested.

#### **Rejection under 35 U.S.C. 103**

Claims 18-20, 23-24 and 26 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *Bidanset (US 3,982,616)*.

The examiner argues that the cited reference discloses the claimed subject matter except the drum and the at least one fly body mounted on the drive train between the motor and the gearbox wherein the drum is arranged at the input side of the drive train and the at least one fly body is arranged at the output side of the drive train. In the examiner's opinion it would have been obvious to modify the design of the cited reference since applicant has not disclosed that the inventive arrangement solves any stated problem or is for any purpose. Applicant disagrees: the special advantages that are provide by the present invention are discussed in particular in paragraph 38 of the instant specification. Reference is being had to the above detailed discussion of the special technical features of the present invention.

Briefly stated, the actual function of the overload protection according to the

invention occurs only in particular when the tool is blocked. The braking moment exerted by the tool onto the output shaft causes the fly bodies to slip relative to the drum and this causes the output shaft to completely block or stall. The fly bodies are no longer subject to centrifugal force, but motor, motor shaft, and drum can still rotate. The elimination of centrifugal forces acting on the fly bodies leads to an immediate decoupling without this requiring that the motor side and the drum must be braked. A further advantage is the complete separation between the drive side and the driven side. When the operator starts the motor while the tool is blocked, the motor including the drum can rotate freely without entraining the fly bodies that are stopped and not subjected to any centrifugal force. This arrangement therefore causes no or only minimal frictional heat. An overloading of the arrangement is prevented. This is not suggested or taught in the cited reference.

U.S. 3,982, 616 shows in Fig. 4 a centrifugal clutch that functions in a way well known in the art. The fly bodies 6b, 11 are arranged on the motor side and are rotated by the drive motor. The drum 5 is arranged on the driven side, i.e., on the tool side. As soon as the drive motor has reached a minimal engine speed, the fly bodies 6b, 11 of the drive side frictionally engage the circumferential wall 5a of the coupling drum. In this way, the shaft 1 is rotated. This is the basic principle of a centrifugal clutch.

The arrangement of *Bidanset* has a function that is completely different from the function of the overload protection device of the present invention. When overload or blocking of the tool occurs in *Bidanset*, the engine speed of the drive shaft 1 is reduced including that of the coupling drum 5. The fly bodies 6b, 11 remain however still engaged on the circumferential wall 5a of the coupling drum 5 and must also be braked. Since the fly bodies are connected to the output shaft at the motor side, the motor must be braked also. Blockage of the tool requires that the complete drive train, including the motor, must to be braked. The arrangement requires the entire drive train to be slowed down until in the end the rotary speed of the motor shaft drops below to the coupling speed. This causes a significant loading of the entire drive train. Since all of the rotating masses must be braked, the braking process takes a long time and no instantaneous decoupling is possible.

A further disadvantage of the device of *Bidanset* is observed when the motor is still operated even though the tool is braked or blocked. The drive motor still drives the fly

bodies 6b, 11 in rotation and the fly bodies 6b, 11 under the effect of centrifugal force rest against the circumferential wall 5a. They cause friction of significant energy on the wall. This leads to overheating and untimely wear.

In summarizing the above, the important feature of the present invention resides in that the drum is arranged on the drive side (output side) while the coupling bodies (fly bodies) are positioned on the driven side (input side). Only with this type of arrangement is it possible to provide an immediate and delay-free decoupling action when overload occurs as well as the subsequent permanent decoupling that prevents overload while the motor is still running. This technical feature is not proposed or suggested by the cited reference *Bidanset*.

Claim 18 is therefore not obvious in view of the cited reference to *Bidanset*.

Claim 24 stands rejected under 35 U.S.C. 103(a) as being unpatentable over *Bidanset* (US 3,982,616) and *Shultz* (US 5,503,261).

Claim 24 is believed to be allowable as dependent claim of claim 18.

Reconsideration and withdrawal of the rejection of the claims 18-20, 23-24 and 26 pursuant to 35 USC 103 are therefore respectfully requested.

The other cited references show centrifugal clutches in which the coupling drum is arranged on the driven side while the centrifugal forces are provided on the motor side. All of these configurations thus correspond to the functional principle of the centrifugal clutch of U.S. 3,982,616. The cited references therefore provide no motivation or teaching in regard to a reverse arrangement with the advantages derived therefrom in regard to overload protection. The present invention as claimed in claims 1 and 18 is therefore not obvious in view of the teachings of the cited references taken alone or in combination.

#### **ALLOWABLE SUBJECT MATTER**

Claims 6, 10-13, 15-16, 21-22, 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant appreciates examiner's suggestion of allowable subject matter but is of the opinion that claim 1 and claim 18 for the reasons presented above should be allowable without having to include any of the features of the claims 6, 10-13, 15-16, 21-22, 25.

### **CONCLUSION**

In view of the foregoing, it is submitted that this application is now in condition for allowance and such allowance is respectfully solicited.

Should the Examiner have any further objections or suggestions, the undersigned would appreciate a phone call or **e-mail** from the examiner to discuss appropriate amendments to place the application into condition for allowance.

Authorization is herewith given to charge any fees or any shortages in any fees required during prosecution of this application and not paid by other means to Patent and Trademark Office deposit account 50-1199.

Respectfully submitted on August 22, 2006,

/Gudrun E. Hockett/

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Ms. Gudrun E. Hockett, Ph.D.  
Patent Agent, Registration No. 35,747  
Lönsstr. 53  
42289 Wuppertal  
GERMANY  
Telephone: +49-202-257-0371  
Facsimile: +49-202-257-0372  
gudrun.draudt@t-online.de

GEH